

The larvæ of *Exyra Rolandiana* may be found in the smaller leaves of *Sarracenia purpurea*, in this vicinity, as soon as the snow is off the ground, early in the spring, apparently having moulted two or three times; they are then of a dull reddish brown and about six mm. long. As soon as the weather grows warmer, they increase in size rapidly, and, having eaten the leaf in which they have hibernated, betake themselves to the larger leaves, which they begin to eat, after having made a hole near the base to let the water out, and after having spun a close web over the mouth. The larva reaches its full growth about the first of May and later, when it is about 20 mm. long, of a dull carmine or brown color, lighter, sometimes white, between the segments. The cocoon is spun in the leaf, of loose white silk, the larva changing to a pupa a few days after spinning. The imago appears early in June. There is a good deal of variation in the color of the females, some being much brighter than others. The following are the extreme measurements of both sexes: males 26–20 mm., females 21–16 mm. In its habits it resembles *E. semicrocea*, generally backing down towards the bottom of the leaf, when disturbed, and using its wings in ascending. I notice that the frenulum at the base of the wings is very long in this species, and, as well as I could see, the moth seems to use it when crawling up the leaf. This species is very delicate and difficult to rear. I have observed four varieties of ichneumon which prey upon the larva, but they have not been determined. *Roland Thaxter.*

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### Proceedings of the Club.

§ 20. WHAT ARE THE CAUSES OF ASSEMBLING AMONG INSECTS? Some of the phenomena of "assembling" among insects were mentioned. This is for sexual purposes sometimes, but not always. Insects are sometimes attracted from great distances, so that many individuals of a species which is not common may be drawn together at one place. Insects are sometimes attracted to their mates who are in such situations as to preclude the possibility that they could have been seen, as for instance, in a pocket. It is evident that scent is some-

times the means by which insects are attracted, individuals being drawn to objects which possess peculiar odors similar to those of their natural food, although these objects are in no way suited for such food. It would be interesting to ascertain how far Silphidae scent their natural food, carrion. Insects are often cheated. Lampyridae are attracted to a candle, although it far outshines their mates. The antennæ of male mosquitoes vibrate on the sounding of certain notes, these notes being the ones produced most often by the wings of the female; thus the male can find his mate. Pectinated antennæ seem adapted especially to well-developed functions; yet *Hepialus*, which has not pectinated antennæ, is conjectured to be sensitive to the presence of its mate. Bombycidae and Tineidae are the principal moths which assemble.

(Jan. 9, 1874.)

B. Pickman Mann.

§ 21. A CARD CATALOGUE OF ILLUSTRATIONS. Mr. S. H. SCUDDER exhibited a series of figures of Orthoptera, cut from plates and books and mounted upon sheets of paper of a uniform size, so that they could be arranged in the manner of a card-catalogue.

(Febr. 13, 1874.)

§ 22. BEETLES WHICH INFEST ELM-TREES. Mr. H. G. HUBBARD exhibited specimens of some beetles which infest elm trees, viz.: *Magdalinus armicollis*, with four species of parasites; *Saperda trilineata* with one parasite; *Synchroa punctata*, exceedingly abundant; and *Buprestis (Anthaxia) viridicornis*. Most of the *Saperdas* transformed in the wood; all the *Synchroas* in the bark.

(March 13, 1874.)

§ 23. ATTITUDES IN WHICH SOME WASPS ARE SUPPOSED TO SLEEP. Mr. S. H. SCUDDER exhibited a wasp (*Ammophila gryphus?*) which rests at night by seizing a blade of grass with its jaws and holding itself extended either with or without the use of its middle and hind feet.<sup>1</sup> The usual position of the wasp, under these circumstances, is such that the thorax is held nearly vertical, the abdomen being more or less elevated toward a horizontal position. Many specimens were seen at different times acting in this manner.

<sup>1</sup> The specimen is preserved in Mr. B. P. Mann's collection as No. 3106, and is figured in Morse's First Book of Zoology, p. 94, fig. 91.



Mr. B. P. MANN said that on June 16, 1872, he found a specimen of a wasp<sup>1</sup> (*Odynerus?* sp.) which had seized hold of the end of a horizontal twig of *Quercus alba* with its jaws, and by that means supported its body in a horizontal position, the head facing inward towards the tree, with the antennæ laid together along the upper surface of the twig. This was just at sunset, and the question recorded at the time was: was the insect taking this position of rest for the purpose of passing the night so? Mr. Mann drew attention also to a communication by Mr. F. G. Sanborn, in the Proc. Bost. Soc. Nat. Hist., xii, p. 98, upon an *Ammophila gryphus* which "was clasping a small oak twig with its mandibles and feet, the body elevated one-fourth of an inch above the twig, and the head directed toward its extremity." Mr. Sanborn had told him that he thought this might be a case of tetanus; but the case is shown still more not to be an anomalous one by a statement which Westwood (Mod. Class. Insects, ii, p. 136) quotes from Latreille, that in the night, or during bad weather, *Foenus jaculator* "fix themselves by their jaws to the stalk of different plants, and are then almost in a perpendicular position."

(Oct. 9, 1874.)

§ 24. PROF. ZELLER'S REVIEW OF EDWARDS' BUTTERFLIES OF NORTH AMERICA, VOL. I. DR. H. A. HAGEN called attention to a review of the first volume of Edwards' Butterflies of North America, by Prof. Zeller, in Stett. Entom. Zeit. [see Rec., No. 367], and stated the views of Prof. Zeller in the determination of some species. He considers *Parnassius Smintheus* as doubtless *P. Delius* var. *intermedius*; he disbelieves in the generic rights of *Neophasia Menapia*; *Pieris Beckeri* is *P. chloridice*; *P. castoria* is *P. napi* var. *napaeae*. *Anthocharis* (not *Anthocaris*) *Cooperi* is *A. Angelina* Bois., whose name has priority. *Colias Keewaydin* is probably *C. Chrysotheme*, but Prof. Zeller may have judged from specimens of *C. Ariadne*, determined by Mr. Edwards, which Dr. Hagen sent as *C. Keewaydin*. The difference of *C. Meadii* from *C.*

<sup>1</sup> Preserved in his collection as No. 2002.

*Myrmidone* seems doubtful. *Argynnis Edwardsii* is surely a good species, against Staudinger's opinion. *Grapta Faunus* is *G. c-album* var. *b.* (Dec. 11, 1874.)

§ 25. EXTENT OF THE NORTH AMERICAN FAUNAL REGION SOUTHWARDS. DR. H. A. HAGEN called attention to the circumstance that none of the Agrionina, Gomphina or Cordulina found in America were found either in Europe or in Asia. He said that although, when he wrote his Synopsis of the [Pseudoneuroptera and] Neuroptera of North America, he had considered the fauna of the Antilles and of Central America a part of the North American fauna, he had since found these faunæ to be more closely connected than he knew them to be then. He had found that some southern forms of insects go northwards as far as Long Island, Nantucket, and the south shore of Cape Cod. [See PSYCHE, vol. i, p. 64; Proc., § 2.] (March 12, 1875.)

§ 26. ATTACHMENT OF POLLINIA TO INSECTS. DR. H. A. HAGEN spoke upon the possibility of error in the description of some insects, occasioned by the attachment of foreign substances to them, and cited as an instance a case of the attachment of the pollinia of *Asclepias* to the tarsi of the intermediate legs of a Mantispa, which he had described without being aware of their true nature. (April 9, 1875.)

## BIBLIOGRAPHICAL RECORD.

(Continued from page 32.)

The date of publication, here given in brackets [ ], marks the time at which the work was received by the Editor, unless an earlier date of publication is known to him. An asterisk \* before a title is the Recorder's certificate of accuracy of quotation. Corrections of errors and notices of omissions are solicited. — B. PICKMAN MANN.

Nos. 781 to 787 are from **Nat. Can.**, vol. viii.

\* 781. L. PROVANCHER. Les [corr.] Phryganes. p. 81-87. [March, 1876.]

Habits of Phryganid larvæ; manner in which their cases are constructed; swarming of *Macronema zebratum*.

\* 782. L. PROVANCHER. Une Pluie d' Insectes. p. 125-127. [April, 1876.]

Fall of a multitude of *Capnia pygmaea* upon the snow at Rivière du Loup, Témiscouata Co., Quebec, March 27, 1876; description; habits; vernacular name.